ELSEVIER

Journal of Nuclear Materials 244 (1997) 305–306

journal of nuclear materials

# Author index

Allen, T.R., G.S. Was and E.A. Kenik, The effect of alloy composition on radiation-induced segregation in Fe–Cr–Ni alloys 244 (1997) 278
Asari, E., K.G. Nakamura, T. Kawabe and M. Kitajima, Observation of relaxation processes of disorder in ion-irradiated graphite using Raman spectroscopy 244 (1997) 173

Baba, S., see Kanari, M. 244 (1997) 168
Baldo, P.M., see Iwase, A. 244 (1997) 147
Bernard, L.C. and E. Bonnaud, Finite volume method for fission gas release modeling 244 (1997) 75
Bhat, N.P. and H.U. Borgstedt, Gibbs energy of formation of $Na_2WO_4$ and $Na_3WO_4$ in liquid sodium 244 (1997) 59
Birtcher, R.C., J.W. Richardson Jr and M.H. Mueller, Amorphization of $U_3Si$ by ion or neutron irradiation 244 (1997) 251
Birtcher, R.C., see Snead Jr., C.L. 244 (1997) 273
Birtcher, R.C., see Pagano Jr., L. 244 (1997) 295
Bonnaud, E., see Bernard, L.C. 244 (1997) 75
Borgstedt, H.U., see Bhat, N.P. 244 (1997) 59

Chernikov, V.N., W. Kesternich and H. Ullmaier, Macrostructure and microstructure of the carbon fibre composite UAM92-5D-B 244 (1997) 1

Daemen, L.L., see Wechsler, M.S. 244 (1997) 177
Delaye, J.M. and D. Ghaleb, Molecular dynamics simulation of low-energy atomic displacement cascades in a simplified nuclear glass 244 (1997) 22

Eadie, R.L., see Jovanovic, M.T. 244 (1997) 141
Eto, M., see Kanari, M. 244 (1997) 168

Fall, T., see Zhang, W. 244 (1997) 44
Farrell, K., see Mansur, L.K. 244 (1997) 212
Federici, G., see Raffray, A.R. 244 (1997) 85
Federici, G. and A.R. Raffray, RACLETTE: a model for evaluating the thermal response of plasma facing components to slow high power plasma transients. Part II: Analysis of ITER plasma facing components 244 (1997) 101
Ferguson, P.D., see Wechsler, M.S. 244 (1997) 177
Funk, L., see Iwase, A. 244 (1997) 147

George, I.M., see Hayward, P.J. 244 (1997) 36
Ghaleb, D., see Delaye, J.M. 244 (1997) 22
Gilberd, P.W., P.B. Johnson, I.C. Vickridge and A.C. Wismayer, TEM and IBA study of the thermal oxidation of V following high dose He implantation 244 (1997) 51
Gunn, J., see Zhang, W. 244 (1997) 44

Hayward, P.J., I.M. George, R.A. Kaatz and D.R. Olander, Measurement of 2000–2100°C oxygen diffusion coefficients in hypostoichiometric $UO_2$ 244 (1997) 36
Hess, N.J., see Weber, W.J. 244 (1997) 258

Iglesias, F.C., see Lewis, B.J. 244 (1997) 153
Iwase, A., L.E. Rehn, P.M. Baldo and L. Funk, Reduction of freely migrating defect concentrations by cascade remnants in Ni–Si alloys 244 (1997) 147

Johnson, P.B., see Gilberd, P.W. 244 (1997) 51
Jovanovic, M.T., Y. Ma and R.L. Eadie, An SEM study of $\beta$-phase decomposition during the annealing of Zr–2.5% Nb alloy 244 (1997) 141

Kaatz, R.A., see Hayward, P.J. 244 (1997) 36
Kanari, M., K. Tanaka, S. Baba, M. Eto and K. Nakamura, Nanoindentation test on electron beam-irradiated boride layer of carbon–carbon composite for plasma facing component of large Tokamak device 244 (1997) 168
Kawabe, T., see Asari, E. 244 (1997) 173
Kenik, E.A., see Allen, T.R. 244 (1997) 278
Kesternich, W., see Chernikov, V.N. 244 (1997) 1
Kirk, M.A., see Snead Jr., C.L. 244 (1997) 273
Kitajima, M., see Asari, E. 244 (1997) 173
Kodali, P., see Yu, N. 244 (1997) 266
Kogai, T., Modelling of fission gas release and gaseous swelling of light water reactor fuels 244 (1997) 131
Konings, R.J.M., Transmutation of iodine: results of the EFTTRA-T1 irradiation test 244 (1997) 16

Lewis, B.J., F.C. Iglesias, A.K. Postma and D.A. Steininger, Iodine spiking model for pressurized water reactors 244 (1997) 153
Lin, C., see Wechsler, M.S. 244 (1997) 177
Lucas, G.E., see Wirth, B.D. 244 (1997) 185

Ma, Y., see Jovanovic, M.T. 244 (1997) 141
Mailloux, J., see Zhang, W. 244 (1997) 44
Mansur, L.K. and K. Farrell, Mechanisms of radiation-induced degradation of reactor vessel materials 244 (1997) 212

Maroudas, D., see Wirth, B.D. 244 (1997) 185
Miller, N.H., see Sunder, S. 244 (1997) 66
Motta, A.T., Amorphization of intermetallic compounds under irradiation – A review 244 (1997) 227
Motta, A.T., see Pagano Jr., L. 244 (1997) 295
Mueller, M.H., see Birtcher, R.C. 244 (1997) 251

Nagasaki, S., S. Tanaka and A. Suzuki, Affinity of finely dispersed montmorillonite colloidal particles for americium and lanthanides 244 (1997) 29
Nakamura, K., see Kanari, M. 244 (1997) 168
Nakamura, K.G., see Asari, E. 244 (1997) 173
Nastasi, M., see Yu, N. 244 (1997) 266

Odette, G.R., see Wirth, B.D. 244 (1997) 185
Olander, D.R., see Hayward, P.J. 244 (1997) 36

Pagano Jr., L., A.T. Motta and R.C. Birtcher, The formation of bubbles in Zr alloys under Kr ion irradiation 244 (1997) 295
Postma, A.K., see Lewis, B.J. 244 (1997) 153

Raffray, A.R. and G. Federici, RACLETTE: a model for evaluating the thermal response of plasma facing components to slow high power plasma transients. Part I: Theory and description of model capabilities 244 (1997) 85
Raffray, A.R., see Federici, G. 244 (1997) 101
Rehn, L.E., see Iwase, A. 244 (1997) 147
Rice, P.M. and R.E. Stoller, The effect of solutes on defect distributions and hardening in ion-irradiated model ferritic alloys 244 (1997) 219
Richard, N., see Zhang, W. 244 (1997) 44
Richardson Jr, J.W., see Birtcher, R.C. 244 (1997) 251

Sarkissian, A., see Zhang, W. 244 (1997) 44
Shoesmith, D.W., see Sunder, S. 244 (1997) 66
Sickafus, K.E., see Weber, W.J. 244 (1997) 205
Sickafus, K.E., see Yu, N. 244 (1997) 266
Snead Jr., C.L., R.C. Birtcher and M.A. Kirk, Metastable reversal of the martensitic phase in $Nb_3Sn$ induced by energetic-electron irradiation 244 (1997) 273
Sommer, W.F., see Wechsler, M.S. 244 (1997) 177
Steininger, D.A., see Lewis, B.J. 244 (1997) 153
Stoller, R.E., Non-steady-state conditions and incascade clustering in radiation damage modeling 244 (1997) 195
Stoller, R.E., see Rice, P.M. 244 (1997) 219
Sunder, S., D.W. Shoesmith and N.H. Miller, Oxidation and dissolution of nuclear fuel ($UO_2$) by the products of the alpha radiolysis of water 244 (1997) 66
Suzuki, A., see Nagasaki, S. 244 (1997) 29

Tanaka, K., see Kanari, M. 244 (1997) 168
Tanaka, S., see Nagasaki, S. 244 (1997) 29
Terreault, B., see Zhang, W. 244 (1997) 44

Ullmaier, H., see Chernikov, V.N. 244 (1997) 1

Vickridge, I.C., see Gilberd, P.W. 244 (1997) 51

Wang, L.M., see Weber, W.J. 244 (1997) 258
Was, G.S., see Allen, T.R. 244 (1997) 278
Weber, W.J., R.E. Williford and K.E. Sickafus, Total displacement functions for SiC 244 (1997) 205
Weber, W.J., N. Yu, L.M. Wang and N.J. Hess, Temperature and dose dependence of ion-beam-induced amorphization in $\alpha$-SiC 244 (1997) 258
Wechsler, M.S., C. Lin, W.F. Sommer, L.L. Daemen and P.D. Ferguson, Radiation effects in materials for accelerator-driven neutron technologies 244 (1997) 177
Williford, R.E., see Weber, W.J. 244 (1997) 205
Wirth, B.D., G.R. Odette, D. Maroudas and G.E. Lucas, Energetics of formation and migration of self-interstitials and self-interstitial clusters in $\alpha$-iron 244 (1997) 185
Wismayer, A.C., see Gilberd, P.W. 244 (1997) 51

Yu, N., see Weber, W.J. 244 (1997) 258
Yu, N., K.E. Sickafus, P. Kodali and M. Nastasi, In situ observation of defect growth beyond the irradiated region in yttria-stabilized zirconia induced by 400 keV xenon ion-beam at −90 and 30°C 244 (1997) 266

Zhang, W., T. Fall, B. Terreault, J. Gunn, J. Mailloux, A. Sarkissian and N. Richard, Study of power load on TdeV divertor plates with an infrared camera 244 (1997) 44

ELSEVIER

Journal of Nuclear Materials 244 (1997) 307–309

journal of nuclear materials

# Subject index

**Adsorption**
Affinity of finely dispersed montmorillonite colloidal particles for americium and lanthanides, S. Nagasaki, S. Tanaka and A. Suzuki 244 (1997) 29

**Actinides** *(excludes Plutonium, Thorium and Uranium)*
Affinity of finely dispersed montmorillonite colloidal particles for americium and lanthanides, S. Nagasaki, S. Tanaka and A. Suzuki 244 (1997) 29
Molecular dynamics simulation of low-energy atomic displacement cascades in a simplified nuclear glass, J.M. Delaye and D. Ghaleb 244 (1997) 22

**Amorphization and Amorphous Materials**
Molecular dynamics simulation of low-energy atomic displacement cascades in a simplified nuclear glass, J.M. Delaye and D. Ghaleb 244 (1997) 22

**Analytical Instruments and Methods**
Study of power load on TdeV divertor plates with an infrared camera, W. Zhang, T. Fall, B. Terreault, J. Gunn, J. Mailloux, A. Sarkissian and N. Richard 244 (1997) 44
Observation of relaxation processes of disorder in ion-irradiated graphite using Raman spectroscopy, E. Asari, K.G. Nakamura, T. Kawabe and M. Kitajima 244 (1997) 173

**Beryllium, Beryllium Alloys and Compounds**
Molecular dynamics simulation of low-energy atomic displacement cascades in a simplified nuclear glass, J.M. Delaye and D. Ghaleb 244 (1997) 22

**Carbon**
Macrostructure and microstructure of the carbon fibre composite UAM92-5D-B, V.N. Chernikov, W. Kesternich and H. Ullmaier 244 (1997) 1

**Composite Materials**
Macrostructure and microstructure of the carbon fibre composite UAM92-5D-B, V.N. Chernikov, W. Kesternich and H. Ullmaier 244 (1997) 1

**Carbon**
Study of power load on TdeV divertor plates with an infrared camera, W. Zhang, T. Fall, B. Terreault, J. Gunn, J. Mailloux, A. Sarkissian and N. Richard 244 (1997) 44

**Chemical Reactions** *(includes Electrochemical and Thermochemical Reactions)*
TEM and IBA study of the thermal oxidation of V following high dose He implantation, P.W. Gilberd, P.B. Johnson, I.C. Vickridge and A.C. Wismayer 244 (1997) 51

**Cavities** *(includes Voids, Holes)*
Modelling of fission gas release and gaseous swelling of light water reactor fuels, T. Kogai 244 (1997) 131

**Composite Materials**
Nanoindentation test on electron beam-irradiated boride layer of carbon–carbon composite for plasma facing component of large Tokamak device, M. Kanari, K. Tanaka, S. Baba, M. Eto and K. Nakamura 244 (1997) 168

**Carbon**
Nanoindentation test on electron beam-irradiated boride layer of carbon–carbon composite for plasma facing component of large Tokamak device, M. Kanari, K. Tanaka, S. Baba, M. Eto and K. Nakamura 244 (1997) 168
Observation of relaxation processes of disorder in ion-irradiated graphite using Raman spectroscopy, E. Asari, K.G. Nakamura, T. Kawabe and M. Kitajima 244 (1997) 173

**Diffusion**
Measurement of 2000–2100°C oxygen diffusion coefficients in hypostoichiometric $UO_2$, P.J. Hayward, I.M. George, R.A. Kaatz and D.R. Olander 244 (1997) 36
Reduction of freely migrating defect concentrations by cascade remnants in Ni–Si alloys, A. Iwase, L.E. Rehn, P.M. Baldo and L. Funk 244 (1997) 147

**Electron Microscopy**
An SEM study of $\beta$-phase decomposition during the annealing of Zr–2.5% Nb alloy, M.T. Jovanovic, Y. Ma and R.L. Eadie 244 (1997) 141

**Electron Irradiation**
Nanoindentation test on electron beam-irradiated boride layer of carbon–carbon composite for plasma facing component of large Tokamak device, M. Kanari, K. Tanaka, S. Baba, M. Eto and K. Nakamura 244 (1997) 168

**Fission Products**
Finite volume method for fission gas release modeling, L.C. Bernard and E. Bonnaud 244 (1997) 75

**Fuels and Fuel Elements**
Measurement of 2000–2100°C oxygen diffusion coefficients in hypostoichiometric $UO_2$, P.J. Hayward, I.M. George, R.A. Kaatz and D.R. Olander 244 (1997) 36
Oxidation and dissolution of nuclear fuel ($UO_2$) by the products of the alpha radiolysis of water, S. Sunder, D.W. Shoesmith and N.H. Miller 244 (1997) 66

**Fusion Reactors**
Study of power load on TdeV divertor plates with an infrared camera, W. Zhang, T. Fall, B. Terreault, J. Gunn, J. Mailloux, A. Sarkissian and N. Richard 244 (1997) 44

**Fission Products**
Transmutation of iodine: results of the EFTTRA-T1 irradiation test, R.J.M. Konings 244 (1997) 16

**Fuels and Fuel Elements**
Iodine spiking model for pressurized water reactors, B.J. Lewis, F.C. Iglesias, A.K. Postma and D.A. Steininger 244 (1997) 153

**Fission Products**
Modelling of fission gas release and gaseous swelling of light water reactor fuels, T. Kogai 244 (1997) 131

**Gases** *(excludes Hydrogen, Helium and Tritium)* in Materials
Finite volume method for fission gas release modeling, L.C. Bernard and E. Bonnaud 244 (1997) 75

**Hydrogen and Hydrides** *(includes Deuterium and Deuterides)*
An SEM study of $\beta$-phase decomposition during the annealing of Zr–2.5% Nb alloy, M.T. Jovanovic, Y. Ma and R.L. Eadie 244 (1997) 141
Observation of relaxation processes of disorder in ion-irradiated graphite using Raman spectroscopy, E. Asari, K.G. Nakamura, T. Kawabe and M. Kitajima 244 (1997) 173

**Ion Irradiation**
TEM and IBA study of the thermal oxidation of V following high dose He implantation, P.W. Gilberd, P.B. Johnson, I.C. Vickridge and A.C. Wismayer 244 (1997) 51
Observation of relaxation processes of disorder in ion-irradiated graphite using Raman spectroscopy, E. Asari, K.G. Nakamura, T. Kawabe and M. Kitajima 244 (1997) 173
Reduction of freely migrating defect concentrations by cascade remnants in Ni–Si alloys, A. Iwase, L.E. Rehn, P.M. Baldo and L. Funk 244 (1997) 147

**Liquid Metals**
Gibbs energy of formation of $Na_2WO_4$ and $Na_3WO_4$ in liquid sodium, N.P. Bhat and H.U. Borgstedt 244 (1997) 59

**Microstructure and Texture** *(excludes by Irradiation)*
Macrostructure and microstructure of the carbon fibre composite UAM92-5D-B, V.N. Chernikov, W. Kesternich and H. Ullmaier 244 (1997) 1

**Mathematical and Computational Methods**
Iodine spiking model for pressurized water reactors, B.J. Lewis, F.C. Iglesias, A.K. Postma and D.A. Steininger 244 (1997) 153

**Mechanical Properties** *(not listed elsewhere)*
Nanoindentation test on electron beam-irradiated boride layer of carbon–carbon composite for plasma facing component of large Tokamak device, M. Kanari, K. Tanaka, S. Baba, M. Eto and K. Nakamura 244 (1997) 168

**Nuclear Properties**
Transmutation of iodine: results of the EFTTRA-T1 irradiation test, R.J.M. Konings 244 (1997) 16

**Nickel, Nickel Alloys and Compounds**
Reduction of freely migrating defect concentrations by cascade remnants in Ni–Si alloys, A. Iwase, L.E. Rehn, P.M. Baldo and L. Funk 244 (1997) 147

**Plasma–Materials Interaction**
Study of power load on TdeV divertor plates with an infrared camera, W. Zhang, T. Fall, B. Terreault, J. Gunn, J. Mailloux, A. Sarkissian and N. Richard 244 (1997) 44

**Phase Equilibria** *(includes Constitution, Phase Stability, Phase Instability)*
An SEM study of $\beta$-phase decomposition during the annealing of Zr–2.5% Nb alloy, M.T. Jovanovic, Y. Ma and R.L. Eadie 244 (1997) 141

**Plasma–Materials Interaction**
Nanoindentation test on electron beam-irradiated boride layer of carbon–carbon composite for plasma facing component of large Tokamak device, M. Kanari, K. Tanaka, S. Baba, M. Eto and K. Nakamura 244 (1997) 168
RACLETTE: a model for evaluating the thermal response of plasma facing components to slow high power plasma transients. Part I: Theory and description of model capabilities, A.R. Raffray and G. Federici 244 (1997) 85

RACLETTE: a model for evaluating the thermal response of plasma facing components to slow high power plasma transients. Part II: Analysis of ITER plasma facing components, G. Federici and A.R. Raffray 244 (1997) 101

**Rare Earths**

Affinity of finely dispersed montmorillonite colloidal particles for americium and lanthanides, S. Nagasaki, S. Tanaka and A. Suzuki 244 (1997) 29

**Radiation Effects: Atomic Defects**

Reduction of freely migrating defect concentrations by cascade remnants in Ni–Si alloys, A. Iwase, L.E. Rehn, P.M. Baldo and L. Funk 244 (1997) 147

**Safety of Nuclear Reactors**

Finite volume method for fission gas release modeling, L.C. Bernard and E. Bonnaud 244 (1997) 75

Iodine spiking model for pressurized water reactors, B.J. Lewis, F.C. Iglesias, A.K. Postma and D.A. Steininger 244 (1997) 153

Modelling of fission gas release and gaseous swelling of light water reactor fuels, T. Kogai 244 (1997) 131

**Tungsten, Tungsten Alloys and Compounds**

Gibbs energy of formation of $Na_2WO_4$ and $Na_3WO_4$ in liquid sodium, N.P. Bhat and H.U. Borgstedt 244 (1997) 59

**Thermodynamic Properties**

Gibbs energy of formation of $Na_2WO_4$ and $Na_3WO_4$ in liquid sodium, N.P. Bhat and H.U. Borgstedt 244 (1997) 59

**Thermal Reactors**

Iodine spiking model for pressurized water reactors, B.J. Lewis, F.C. Iglesias, A.K. Postma and D.A. Steininger 244 (1997) 153

**Theory and Modelling**

Modelling of fission gas release and gaseous swelling of light water reactor fuels, T. Kogai 244 (1997) 131

RACLETTE: a model for evaluating the thermal response of plasma facing components to slow high power plasma transients. Part I: Theory and description of model capabilities, A.R. Raffray and G. Federici 244 (1997) 85

RACLETTE: a model for evaluating the thermal response of plasma facing components to slow high power plasma transients. Part II: Analysis of ITER plasma facing components, G. Federici and A.R. Raffray 244 (1997) 101

**Uranium, Uranium Alloys and Compounds**

Finite volume method for fission gas release modeling, L.C. Bernard and E. Bonnaud 244 (1997) 75

Measurement of 2000–2100°C oxygen diffusion coefficients in hypostoichiometric $UO_2$, P.J. Hayward, I.M. George, R.A. Kaatz and D.R. Olander 244 (1997) 36

Oxidation and dissolution of nuclear fuel ($UO_2$) by the products of the alpha radiolysis of water, S. Sunder, D.W. Shoesmith and N.H. Miller 244 (1997) 66

Modelling of fission gas release and gaseous swelling of light water reactor fuels, T. Kogai 244 (1997) 131

**Vanadium, Vanadium Alloys and Compounds**

TEM and IBA study of the thermal oxidation of V following high dose He implantation, P.W. Gilberd, P.B. Johnson, I.C. Vickridge and A.C. Wismayer 244 (1997) 51

**Wastes**

Affinity of finely dispersed montmorillonite colloidal particles for americium and lanthanides, S. Nagasaki, S. Tanaka and A. Suzuki 244 (1997) 29

Oxidation and dissolution of nuclear fuel ($UO_2$) by the products of the alpha radiolysis of water, S. Sunder, D.W. Shoesmith and N.H. Miller 244 (1997) 66

**Zirconium, Zirconium Alloys and Compounds**

Measurement of 2000–2100°C oxygen diffusion coefficients in hypostoichiometric $UO_2$, P.J. Hayward, I.M. George, R.A. Kaatz and D.R. Olander 244 (1997) 36

An SEM study of $\beta$-phase decomposition during the annealing of Zr–2.5% Nb alloy, M.T. Jovanovic, Y. Ma and R.L. Eadie 244 (1997) 141